CHAPTER ONE 1

Global review

Traditional medicine (TM) and complementary and alternative medicine (CAM) are attracting more and more attention within the context of health care provision and health sector reform. Many factors are contributing to widespread use of TM/CAM. But some important issues must be addressed if their potential is to be developed successfully.

1.1 What is traditional medicine? Towards a working definition

There are many TM systems, including traditional Chinese medicine, Indian ayurveda and Arabic unani medicine. A variety of indigenous TM systems have also been developed throughout history by Asian, African, Arabic, Native American, Oceanic, Central and South American and other cultures. Influenced by factors such as history, personal attitudes and philosophy, their practice may vary greatly from country to country and from region to region. Needless to say, their theory and application often differ significantly from those of allopathic medicine (Box 1).

Depending on the therapies involved, TM/CAM therapies can be categorized as medication therapies – if they use herbal medicines,[d] animal parts and/or minerals – or non-medication therapies – if carried out primarily without using medication, as in the case of acupuncture, manual therapies, qigong, tai ji, thermal therapy, yoga, and other physical, mental, spiritual and mind–body therapies.

Box 1

WHAT IS TRADITIONAL MEDICINE?

Traditional medicine may be codified, regulated, taught openly and practised widely and systematically, and benefit from thousands of years of experience.

Conversely, it may be highly secretive, mystical and extremely localized, with knowledge of its practices passed on orally. It may be based on salient physical symptoms or perceived supernatural forces.

Clearly, at global level, traditional medicine eludes precise definition or description, containing as it does diverse and sometimes conflicting characteristics and viewpoints. But a working definition is nevertheless useful. For WHO such a definition must of necessity be comprehensive and inclusive.

WHO therefore defines traditional medicine as including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness.

Complementary and alternative medicine

The terms "complementary" and "alternative" (and sometimes also "non-conventional" or "parallel") are used to refer to a broad set of health care practices that are not part of a country's own tradition, or not integrated into its dominant health care system.

[d] Herbal medicines include herbs, herbal materials, herbal preparations and finished herbal products, that contain as active ingredients parts of plants, or other plant materials, or combinations thereof.

Acupuncture is a traditional Chinese medicine therapy. But many European countries define it and traditional Chinese medicine in general as CAM, because they do not form part of their own health care traditions. Similarly, since homeopathy and chiropractic systems were developed in Europe in the 18th Century, after the introduction of allopathic medicine, they are not categorized as TM systems nor incorporated into the dominant modes of health care in Europe. Instead, they are regarded as a form of CAM.[e]

"To speak of "alternative" medicine is...like talking about foreigners – both terms are vaguely pejorative and refer to large, heterogeneous categories defined by what they are not rather than by what they are."[1]

Some common TM/CAM therapies, described in the 1999 *British Medical Journal* series on CAM, are shown in Table 1. The table is by no means exhaustive, and new branches of established disciplines are being developed continually.

Incorporation of TM/CAM into national health care systems

WHO has defined three types of health system to describe the degree to which TM/CAM is an officially recognized element of health care.

In an **integrative system**, TM/CAM is officially recognized and incorporated into all areas of health care provision. This means that: TM/CAM is included in the relevant country's national drug policy; providers and products are registered and regulated; TM/CAM therapies are available at hospitals and clinics (both public and private); treatment with TM/CAM is reimbursed under

Table 1

Commonly used TM/CAM therapies and therapeutic techniques

	Chinese medicine	Ayurveda	Unani	Naturopathy	Osteopathy	Homeopathy	Chiropractic	Others
Herbal medicines	●	●	●	●	■	●		●[a]
Acupuncture/ acupressure	●				■			■[b]
Manual therapies	Tuina[c]	●	●	▣	●		●	Shiatsu[d]
Spiritual therapies	●	●	●	●				Hypnosis, healing, meditation
Exercises	Qigong[e]	Yoga		Relaxation				

● – *commonly uses this therapy/therapeutic technique*
■ – *sometimes uses this therapy/therapeutic technique*
▣ – *uses therapeutic touch*

[a] *for example, many informal TM systems in Africa and Latin America use herbal medicines.*
[b] *for example, in Thailand, some commonly used TM therapies incorporate acupuncture and acupressure.*
[c] *type of manual therapy used in traditional Chinese medicine.*
[d] *refers to manual therapy of Japanese origin in which pressure is applied with thumbs, palms, etc., to certain points of the body.*
[e] *component of traditional Chinese medicine that combines movement, meditation and regulation of breathing to enhance the flow of vital energy (qi) in the body to improve circulation and enhance immune function.*

[e] Accordingly, in this document, "traditional medicine" is used when referring to Africa, Latin America, South-East Asia, and/or the Western Pacific, whereas "complementary and alternative medicine" is used when referring to Europe and/or North America (and Australia). When referring in a general sense to all of these regions, the comprehensive TM/CAM is used.

health insurance; relevant research is undertaken; and education in TM/CAM is available. Worldwide, only China, the Democratic People's Republic of Korea, the Republic of Korea and Viet Nam can be considered to have attained an integrative system (Table 2).

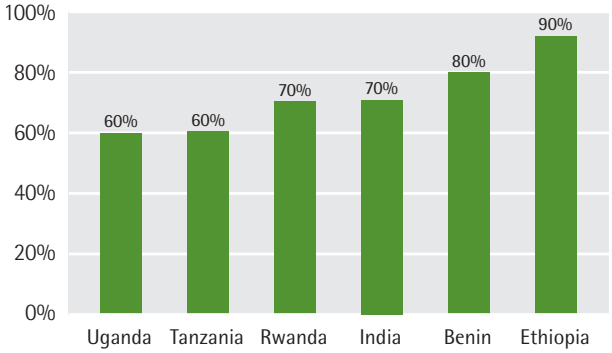
An **inclusive system** recognizes TM/CAM, but has not yet fully integrated it into all aspects of health care, be this health care delivery, education and training, or regulation. TM/CAM might not be available at all health care levels, health insurance might not cover treatment with TM/CAM, official education in TM/CAM might not be available at university level, and regulation of TM/CAM providers and products might be lacking or only partial. That said, work on policy, regulation, practice, health insurance coverage, research and education will be under way. Countries operating an inclusive system include developing countries such as Equatorial Guinea, Nigeria and Mali which have a national TM/CAM policy, but little or no regulation of TM/CAM products, and developed countries such as Canada and the United Kingdom which do not offer significant university-level education in TM/CAM, but which are making concerted efforts to ensure the quality and safety of TM/CAM. Ultimately, countries operating an inclusive system can be expected to attain an integrative system (Table 3).

In countries with a **tolerant system**, the national health care system is based entirely on allopathic medicine, but some TM/CAM practices are tolerated by law.

1.2 Broad use and appeal

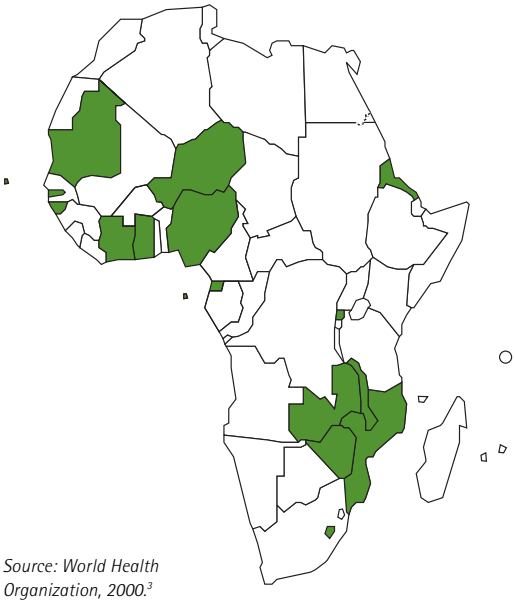
In many developing countries – as often stated in government reports – the majority of the population continues to use TM to meet its primary health care needs (Figure 1). Similarly, the resolution on *Promoting the Role of Traditional Medicine in Health Systems: A Strategy for the African Region*, adopted by the 50th WHO Regional Committee for the African Region in August 2000, states that about 80% of the population of African Member States use TM to help meet health care needs.[2] This includes use of traditional birth attendants (TBAs). In fact, recognizing the contribution that TBAs can make to primary health care, a number of African countries have initiated training programmes to improve TBAs' skills and primary health care knowledge (Figure 2). Some of these countries also provide training in TM for pharmacists, doctors and nurses.

Figure 1
Use of TM for primary health care is extensive in some developing countries



Sources: compiled from government reports to World Health Organization.

Figure 2
African countries with health care training programmes for traditional birth attendants



Source: World Health Organization, 2000.[3]

Table 2 **Examples of countries with an integrative approach to TM/CAM**

	National policy on TM/CAM	TM/CAM unit or department within ministry of health	Regulation of herbal products and herbal products industry	Human TM resources		Practice at all levels including public hospitals (i.e. if practised in public hospitals, TM/CAM are integrated into national health system)		Health insurance coverage for treatment and products	TM/CAM national research institutes	Official education at university level that covers both TM and AM for doctors, pharmacists and nurses
China	1949 constitution contains policy on TM	State Administration of Traditional and Complementary Medicine (TCM)	Regulation – Yes Pharmacopoeia includes herbs List of essential drugs includes herbal medicines Manufacturers 600 Herbal farmers 340 000	TCM doctors TCM/AM doctors TCM pharmacists TCM associate doctors AM pharmacists	525 000 10 000 83 000 72 000 55 000	TCM hospitals TCM/AM hospitals Total beds TM hospitals for minority groups	2 500 39 35 000 127	Full	170 national and state research institutes	30 TCM universities 3 TM colleges for minority groups 51 medical technology schools of TCM
Republic of Korea	National TM policy 1969	Oriental Medicine Bureau	Regulation – Yes Pharmacopoeia includes herbs	Oriental doctors Acupuncturists	9 914 4 500	107 oriental medical hospitals and 6 590 local oriental medical clinics		Full	1 national research institute	11 oriental medicine universities
Viet Nam	National TM policy 1955	Department of TM	Regulation – Yes List of essential drugs includes herbal medicines State manufacturers 2	TM doctors Acupuncturists TM practitioners	25 500 20 000 5 000	48 hospitals with TM department		Full	3 national research institutes	TM faculty in 3 medical colleges, 2 medical technology schools of TM

Sources: compiled from government reports to World Health Organization.

Table 3 **Examples of countries with an inclusive approach to TM/CAM**

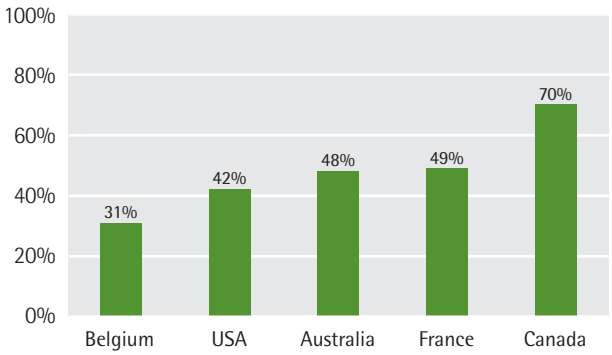
	National policy on TM/CAM	TM/CAM unit or department within ministry of health	Regulation of TM or herbal products or of both TM and herbal products	TM/CAM practised at all levels including public hospitals (i.e. if practised in public hospitals, TM/CAM are integrated into national health system)	Health insurance coverage for treatment and products	TM/CAM research institute at national or university level	Official education at university level, covering both TM + AM for doctors, pharmacists and nurses
India	Yes	Yes	Both	Yes in some hospitals	No	Yes	Yes
Sri Lanka	Yes	Yes	Both	No	No	No	No
Indonesia	Yes	Yes	Both	Yes, in some state hospitals	No	Yes	No
Japan	No	No	Both	Yes, in some state hospitals	Yes	Yes, in some prefectures	No
Australia	No	Yes, in some states	Herbal products	Yes, in some state hospitals	Partial	No	Yes
United Arab Emirates	No	No	Both	Yes, in some state hospitals	No	Yes	No
Germany	No	No	Both	Yes, in some state hospitals	Partial	Yes	No
Norway	Yes	Staff in charge	Both	Yes, in some state hospitals	Partial	Yes, in one state university	No
United Kingdom	Yes	No	Both	Yes, in some state hospitals	Partial	No	No, in preparation
Canada	Yes	Yes	Both	Yes, in some state hospitals	Partial	Yes, in some state universities	No
USA	No	No	Both	Yes, in some state hospitals	Partial	Yes, NCCAM and in some state universities	No
Ghana	Yes	Yes	Both	No	No	Yes	No
Nigeria	Yes	Yes	Both	Yes	No	Yes	No

Sources: compiled from government reports to World Health Organization.

In many Asian countries TM continues to be widely used, even though allopathic medicine is often readily available. In Japan, 60–70% of allopathic doctors prescribe kampo medicines for their patients. In Malaysia, traditional forms of Malay, Chinese and Indian medicine are used extensively. In China, TM accounts for around 40% of all health care delivered, and is used to treat roughly 200 million patients annually.[4] For Latin America, the WHO Regional Office for the Americas (AMRO/PAHO) reports that 71% of the population in Chile and 40% of the population in Colombia have used TM.[5]

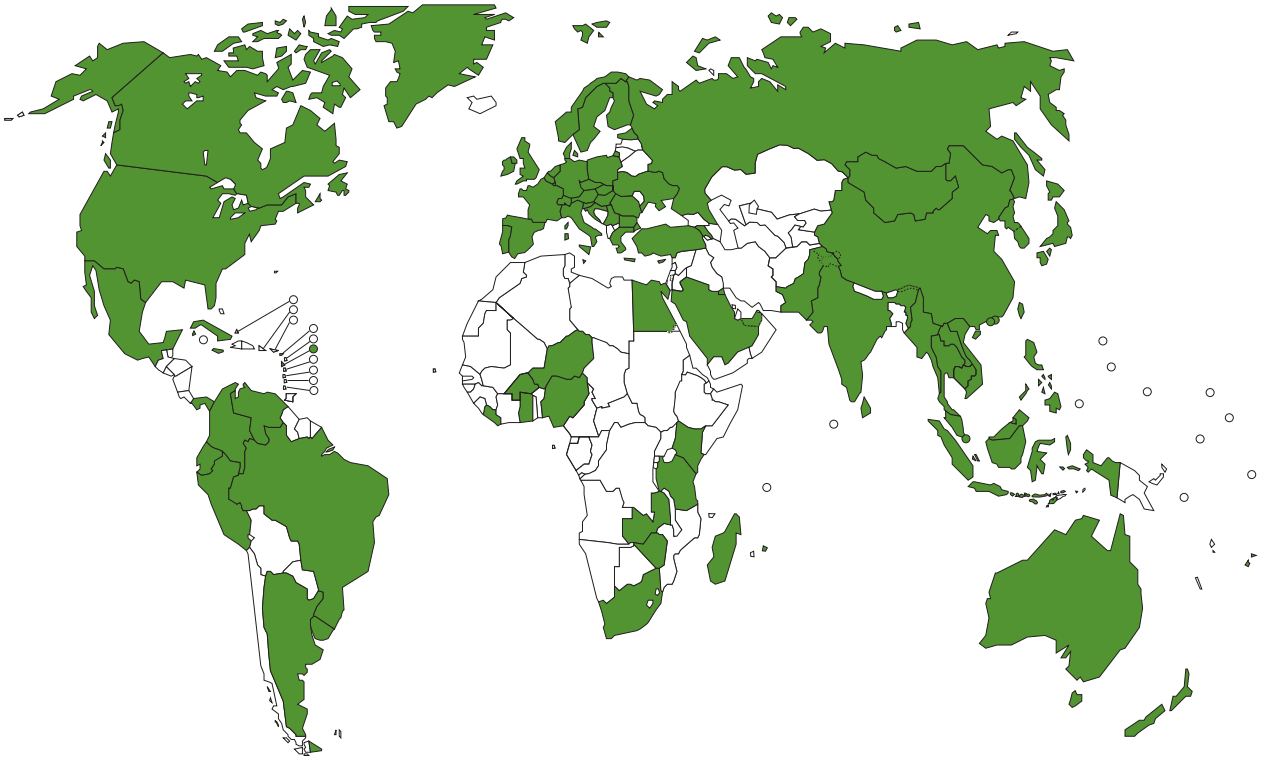
In many developed countries, certain CAM therapies are very popular. Various government and non-government reports (Figure 3) state that the percentage of the population that has used CAM is 46% in Australia, 49% in France and 70% in Canada.[6,7,8] A survey of 610 Swiss doctors showed that 46% had used some form of CAM, mainly homeopathy and acupuncture. This is comparable to the CAM figure for the Swiss population as a whole.[9] In the United Kingdom, almost 40% of all general allopathic practitioners offer some form of CAM referral or access.[10] In the USA, a national survey reported in the *Journal of the American Medical Association* indicated that use of at least 1 of 16 alternative therapies during the previous year increased

Figure 3
Percentage of population which has used CAM at least once in selected developed countries



Sources: Fisher P & Ward A, 1999; Health Canada, 2001, World Health Organization, 1998.[7,8,6]

Figure 4
Countries where acupuncture is practised by allopathic doctors only, or by both allopathic doctors and acupuncturists



Sources: World Federation of Acupuncture-Moxibustion Societies, 2000; World Health Organization, in press.[11,12]

from 34% in 1990 to 42% in 1997.[13] The number of visits to CAM providers now exceeds by far the number of visits to all primary care physicians in the US.

Acupuncture is especially popular. Originating in China, it is now used in at least 78 countries and practised not only by acupuncturists, but also by allopathic practitioners (Figure 4). According to the World Federation of Acupuncture-Moxibustion Societies, there are at least 50 000 acupuncturists in Asia. In Europe, there are an estimated 15 000 acupuncturists, including allopathic doctors who also practise as acupuncturists. In Belgium, 74% of acupuncture treatment is administered by allopathic doctors. In Germany, 77% of pain clinics provide acupuncture. In the United Kingdom, 46% of allopathic doctors either recommend patients for acupuncture treatment or treat their patients with acupuncture themselves. The USA has 12 000 licensed acupuncturists – the practice of acupuncture is legal in 38 states and six states are developing acupuncture practice policies.[11,14,15]

Table 4

Increase in sales of the most popular herbal products in the USA 1997–1998

Herb	Sales in US$ million		% increase in sales
	1997	1998	
Total herbal supplements	292	587	101
Echinacea	33	64	96
Garlic	66	81	24
Ginkgo biloba	52	126	143
Ginseng	76	96	26
St. John's wort	1	103	102
Other herbs	64	118	85

Source: data from Scanner Data, FDM, Inc., USA.[18]

1.3 Expenditure

Reports on total national expenditure on TM/CAM are scarce. Information on national out-of-pocket expenditure for self-treatment with TM/CAM is even more scant. But some figures are available and, with TM/CAM gaining in use worldwide, public and private expenditure is clearly on the increase. In Malaysia, an estimated US$ 500 million is spent annually on TM/CAM, compared to about US$ 300 million on allopathic medicine.[6] In the USA, total 1997 out-of-pocket CAM expenditure was estimated at US$ 2700 million, which was comparable to the projected 1997 out-of-pocket expenditure for all physician services.[13] In the United Kingdom, annual CAM expenditure is estimated at US$ 2300 million respectively.[16] In Canada, it is estimated that a total of US$ 2400 million was spent in 1997–1997 on CAM.[8]

The world market for herbal medicines based on traditional knowledge is now estimated at US$ 60 thousand million.[17] In the USA, herbal sales increased by 101% in mainstream markets between May 1996 and May 1998. The most popular herbal products include ginseng, *Ginkgo biloba*, garlic, *Echinacea* spp. and St. John's wort (Table 4).[18]

1.4 Accounting for use and increasing interest

Accessible and affordable in developing countries

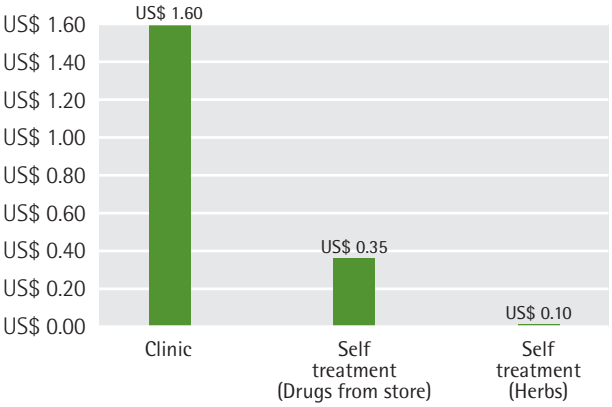
In some developing countries TM is much more widely available than allopathic medicine. In Tanzania, Uganda and Zambia, researchers have found a ratio of TM practitioners[f] to population of 1:200–1:400. This contrasts starkly with the availability of allopathic practitioners, where the ratio is typically 1:20 000 or less.[19,20] A 1991 survey by the US Agency for International Development found that, in sub-Saharan Africa, traditional practitioners outnumber allopathic practitioners by 100 to 1.[21] Moreover,

[f] TM practitioners are generally understood to be traditional healers, bone setters, herbalists, etc. TM providers include both traditional medicine practitioners and allopathic medicine professionals such as doctors, dentists and nurses who provide TM/CAM therapies to their patients. E.g. many medical doctors also use acupuncture to treat their patients.

allopathic practitioners are located primarily in cities or other urban areas. So for many rural populations TM is the only available source of health care. Surveys conducted by the WHO Roll Back Malaria Programme in 1998 showed that in Ghana, Mali, Nigeria and Zambia, more than 60% of children with high fever are treated at home with herbal medicines.[22,23,24,25] One of the key reasons cited for this was the ready accessibility of herbal medicines in rural areas. (See also Figure 5.)

Figure 5

Malaria treatment in Ghana with herbal medicines is considerably cheaper than other forms of health care



Source: adapted from Ahorlu C et al., 1997.[26]

TM is also sometimes the only affordable source of health care – especially for the poorest patients. In Ghana, Kenya and Mali, research has shown that a course of pyrimethamine/sulfadoxine antimalarials can cost several dollars. Yet total out-of-pocket health expenditure in Ghana and Kenya is only around US$ 6 per capita per year. In other words, some populations simply cannot afford chemical drugs.[27] On the other hand, herbal medicines may be not only relatively cheap but payable in kind and/or according to the "wealth" of the client. Similarly in Salvador, the fee for treating a child for diarrhoea as an out-patient at a public hospital – including consultation fee and medication – can be as high as US$ 50. Treatment by a TM practitioner may be no more than US$ 5 or payable in kind.[28]

Greater accessibility to TM practitioners – and confidence in their ability to manage debilitating, incurable disease – probably explain why most Africans living with HIV/AIDS use traditional herbal medicines to obtain symptomatic relief and to manage opportunistic infections. Frequently, TM practitioners are well known in their communities for their expertise in health care and prevention of many sexually-transmitted diseases.[9] At the same time, TM is often embedded in wider belief systems and continues to be an integral and important part of many people's lives. UNAIDS is therefore advocating collaboration with TM practitioners in AIDS prevention and care in sub-Saharan Africa.[29,30]

> "It was argued at [a] UNAIDS-sponsored meeting in Kampala [in June 2000] that traditional medicine is in a real sense carrying the burden of clinical care for the AIDS epidemic in Africa. This trend has been largely overlooked by health ministries and international agencies."[31]

TM is also commonly used in developing countries in Asia. The Indian Government has reported that for 65% of its population, TM is the only available source of health care. In some Asian countries, governments are actively promoting TM. The Ministry of Health of the Lao People's Democratic Republic, is encouraging use of TM, including broad distribution among communities of the report, *Medicines in Your Garden.* In

[9] Researchers in some countries have noted that some other illnesses and conditions not classified as sexually transmitted in biomedical nosology may be locally regarded as such by traditional healers and their clients.

Thailand, the Ministry of Health is working to enhance people's awareness and greater use of medicinal plants for primary health care. This has included publication of the *Manual of Medical Plants for Primary Health Care.*

An alternative or complementary approach to health care in developed countries

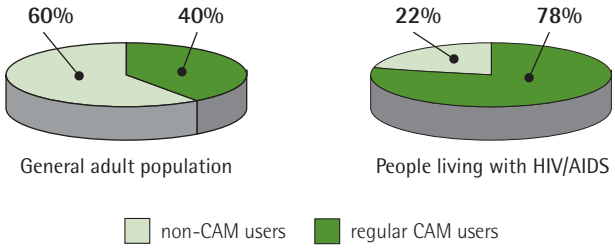
In many developed countries, increased use of CAM indicates that factors other than tradition and cost are at work. Concern about the adverse effects of chemical drugs, questioning of the approaches and assumptions of allopathic medicine, greater public access to health information, changing values and reduced tolerance of paternalism are just some of them.[16,32]

"Traditional medicine is based on the needs of individuals. Different people may receive different treatments even if, according to modern medicine, they suffer from the same disease. Traditional medicine is based on a belief that each individual has his or her own constitution and social circumstances which result in different reactions to "causes of disease" and treatment."[6]

At the same time, longer life expectancy has brought with it an increased risk of developing chronic, debilitating diseases such as heart disease, cancer, diabetes and mental disorders.[27] Although allopathic treatments and technologies are abundant, some patients have found that these have not provided a satisfactory solution. Treatments and technologies have not been sufficiently effective or have caused adverse effects. A national survey in the USA showed that the majority of CAM users do not in fact perceive CAM as "alternative to" but rather as "complementary to" allopathic medicine.[33]

A recent survey showed that 78% of patients living with HIV/AIDS in the USA use some form of CAM (Figure 6).[34,35,36]

Figure 6
Use of CAM by patients living with HIV/AIDS in the USA



Sources: Anderson W et al., 1993; Mason F, 1995; Ostrow MJ et al., 1997.[34,35,36]

In developed country surveys of health-seeking behaviour and consumer satisfaction, a high degree of appreciation of the quality of care offered by CAM providers has been noted. The perceived relatively low risks associated with the use of procedural-based therapies of TM may also contribute to their popularity. In an analysis of data on malpractice for 1990–1996 in the USA, claims against chiropractors, massage therapists and acupuncturists were generally found to occur less frequently, and usually involved

"It is imperative to acknowledge and affirm the essential role of conventional medicine with its capability to respond competently in the care of acute disease and trauma, its technical innovations in diagnosis and treatment and the escalating clinical applications of basic science discoveries. However, it is in the areas of comprehensive care and the management of chronic disease conditions that the more reductionistic, mechanistic, and organ-specific approach of conventional medicine can be lacking."[37]

less severe injury, than claims against medical doctors. In a worldwide literature search, only 193 adverse events following acupuncture (including relatively minor events such as bruising and dizziness) were identified for a 15-year period.[38]

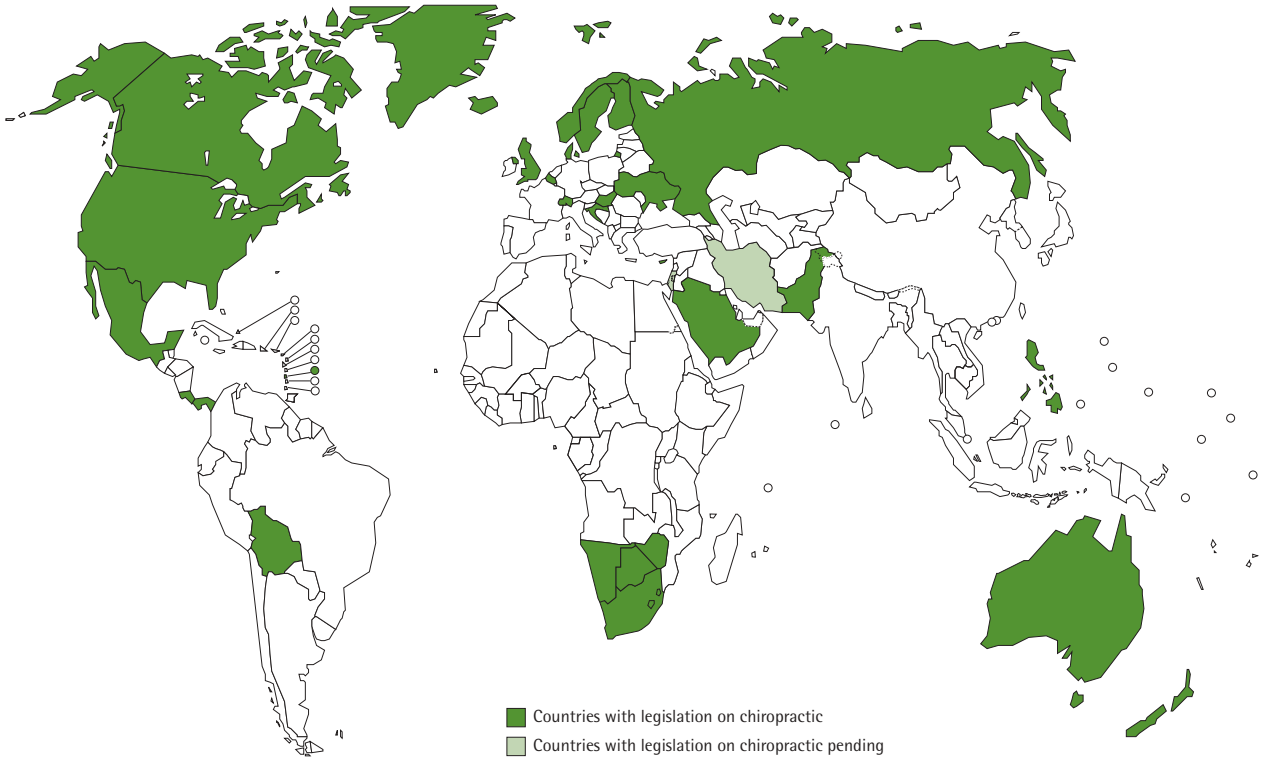
1.5 Responding to the popularity of TM/CAM

Governments are responding to the growing use of TM/CAM. Several countries are currently developing regulations for the practice of chiropractic, while 24 countries already have such regulations (Figure 7). Others are working to regulate herbal medicines — the number of WHO Member States with regulations related to herbal medicines increased from 52 in 1994 to 64 in 2000 (Figure 8). In 2000 alone, regulations on herbal medicines were developed by Australia, Canada, Madagascar, Nigeria and the USA. (WHO assisted both Madagascar and Nigeria in developing its regulations.) In some countries, structures, budget and training in TM/CAM are growing steadily (Table 5).

The growing number of national TM research institutes in developing countries is also a sign of the growing importance of TM. In fact, most developing countries now have national TM research institutes. Notable examples are found in China, Ghana, the Democratic People's Republic of Korea, the Republic of Korea, India, Mali, Madagascar, Nigeria, Thailand, Indonesia, the Lao People's Democratic Republic, Sri Lanka and Viet Nam. (See also Figure 9.)

Meanwhile, in developing countries, responses to the popularity of CAM are becoming more and more extensive. In 1995, the Norwegian Parliament examined how CAM could best be incorporated into the Norwegian health service. This included

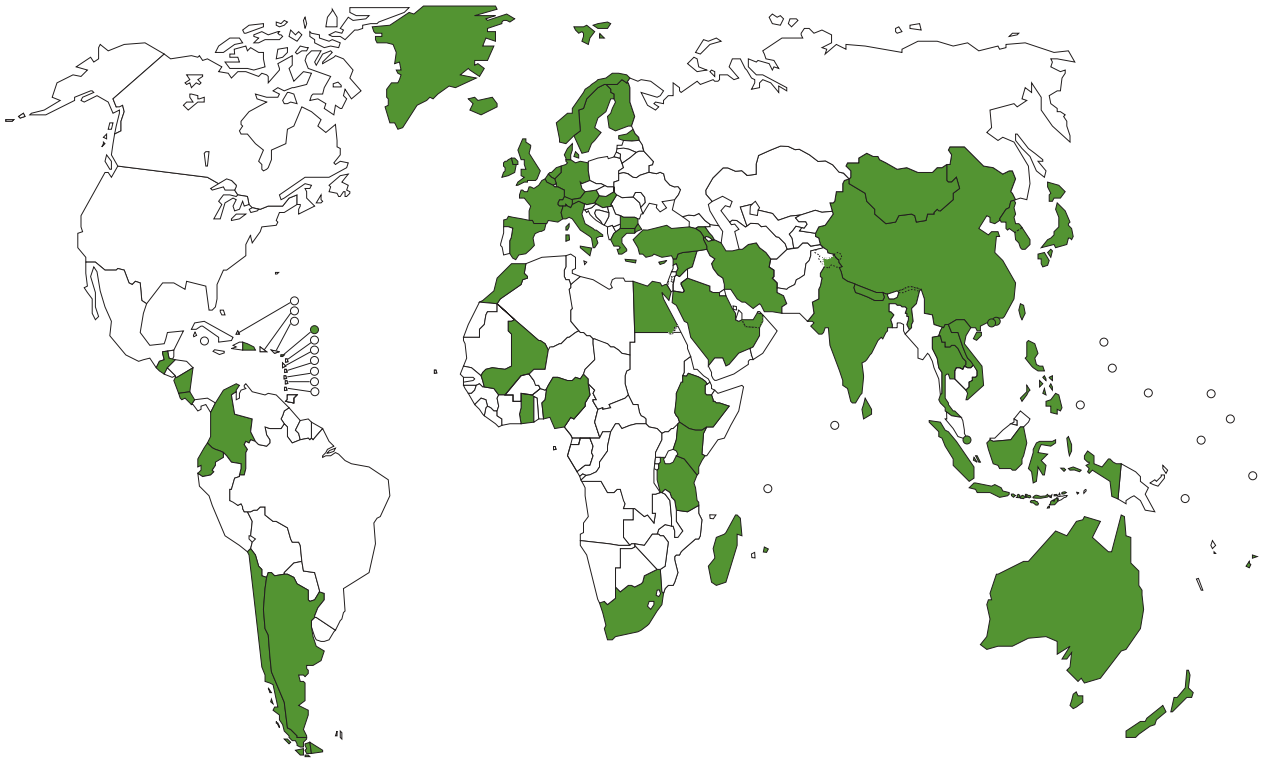
Figure 7
Chiropractic laws are now widespread



Source: reported by World Federation of Chiropractic and World Chiropractic Alliance in 2000.[39,40]

Figure 8

More and more countries are regulating herbal medicines



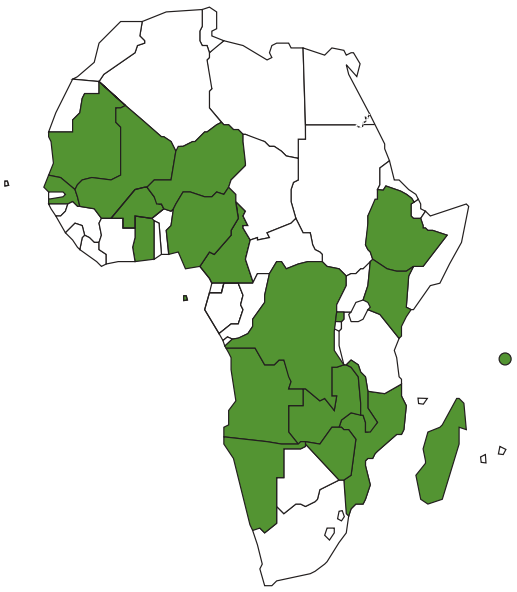
Source: World Health Organization, 1998[41] and data collected by World Health Organization during period 1999–2001.

consideration of: certification for professional training and education in CAM, and documenting CAM treatments. In 1997, the Ministry of Health and Social Affairs established a committee to look at various aspects of CAM. Its report proposed repeal of the Act Relating to Quackery, and creation of a registration system for CAM providers. It also proposed allocating funds over a five-year period, to increase knowledge of CAM, and promote cooperation between CAM providers and Norway's health care system.[42] This last was followed up at international level in 1999 by the *Memorandum of Understanding on Co-operation in Health* signed by the Ministers of Health of the People's Republic of China and Norway. The agreement seeks to promote health and health services in both countries, focusing on TM/CAM and development, regulation and organization of hospitals.

CAM provision and use has also been officially reviewed in the United Kingdom, following growing concerns about its

Figure 9

Many African countries have institutes that carry out TM research



Source: World Health Organization, 2000.[3]

Table 5

A growing number of African countries have established structures, budget and training in TM

Country	A legal framework for TM	A national management or coordination body	Association(s) of traditional practitioners	Directory of traditional practitioners	National budget allocation for TM
Angola		●	●	●	
Botswana			●		
Burkina Faso	●	●	●		
Cameroon			●	●	
Côte d'Ivoire	●	●	●		●
Dem. Rep. of the Congo	●	●			
Equatorial Guinea	●	●	●		
Eritrea					●
Ethiopia	●		●		●
Gambia				●	
Ghana	●	●	●		●
Lesotho	●	●	●	●	
Madagascar	●	●	●	●	
Malawi		●	●		
Mali	●	●	●	●	●
Mauritania			●		
Mozambique	●		●		
Namibia	●	●	●		
Niger	●	●	●	●	
Nigeria	●	●	●		●
Rwanda		●	●	●	●
Sao Tome & Principe	●	●	●		
Senegal			●		●
Zambia	●	●	●	●	
Zimbabwe	●	●	●	●	

Source: World Health Organization, 2000.[3]

safety. Currently — with the exception of osteopathy and chiropractic, which are protected by statute — anyone can practise CAM without any training. In 1999, the House of Lords requested the Committee on Science and Technology to make a survey of this type of health care. The committee recommended creation of a central mechanism (funded by government and charitable resources) to coordinate, advise and oversee training on research into CAM. Secondly, it suggested that the National Health Service Research and Development Directorate, and the Medical Research Council, dedicate research funding to create centres of excellence for CAM research, using the US National Center for Complementary and Alternative Medicine (see next page) as a model.[16]

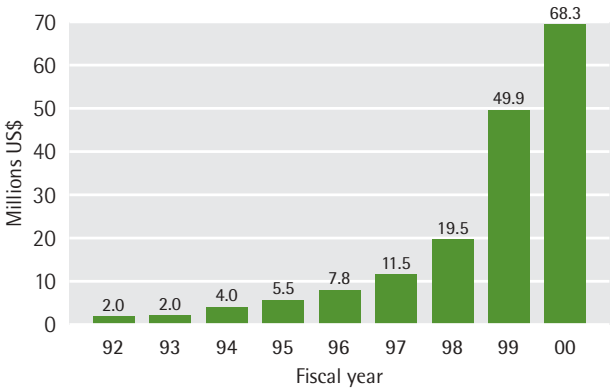
Increased CAM training and education opportunities in the United Kingdom also reflect increased interest in this type of health care. Training in acupuncture, for example, is provided in more and more academic settings. And CAM courses are

also being offered to medical students, although they tend to provide an academic introduction only, rather than teach specific clinical skills. The proportion of medical schools in the United Kingdom offering such courses rose from 10% to 40% between 1995 and 1997.[43] In the USA, a large number of medical schools now have elective classes and CAM seminars.[44]

In developed countries, funding and establishment of CAM research and research units at sites of research excellence is likewise increasing. In the United Kingdom, the National Health Service recently funded two trials of acupunture for treating chronic pain, while in Germany, a centre for CAM research at the Technische Universität in Munich has produced a series of important systematic reviews.[43]

In the USA, in 1992, US Congress established the Office for Alternative Medicine in the National Institutes of Health (see http://nccam.nih/gov/). The mandate of this Office was extended in 1999, with the Office becoming the National Center for Complementary and Alternative Medicine (NCCAM). NCCAM has received progressive budget increases – by 2000, its budget had risen to US$ 68.4 million (Figure 10). Concurrently in 2000, the White House set up the White House Commission on Alternative Medicine. Created by an executive order on 8 March 2000, the Commission is charged with developing a set of legislative and administrative recommendations to maximize the benefits of CAM for the general public. It has ten members, including senators and experts.

Figure 10
CAM funding is increasing significantly in the USA



Source: National Center for Complementary and Alternative Medicine, 2000.[45]

The USA also has a large number of units for CAM research, based at research institutions such as the University of Maryland, Columbia University in New York, Harvard University in Massachusetts, and the Memorial Sloan-Kettering Cancer Center in New York.[43]

International activity in TM/CAM is also becoming more prominent. The European Union (EU) recently completed a COST (European Cooperation in the field of Scientific and Technical research) project on "unconventional medicine". And in a 1999 EU Parliamentary Assembly (entitled *A European Approach to Non-conventional Medicines*), Member States were called upon to promote official recognition of CAM in medical faculties, to encourage its use in hospitals, and to encourage allopathic doctors to study CAM at university level.[46] Also in Europe, the European Agency for the Evaluation of Medicinal Products (EMEA) works on the quality, safety and efficacy of herbal medicinal products. An Ad Hoc Working Group on Herbal Medicinal Products was established by the EMEA in 1997. (See also Chapter 4).

More recently, the *Abuja Declaration on Roll Back Malaria*, signed by the African heads of state and governments of 53 countries in 2000, recognized the important contribution that TM makes to fighting malaria. The *Declaration* includes a request to governments to ensure the effectiveness of such treatment, and to make it available and accessible to the poorest groups in communities.